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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/509,269

09/27/2004

Mahito Kawano

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IP GROUP OF DLA PIPER LLP (US)
ONE LIBERTY PLACE
1650 MARKET ST, SUITE 4900
PHILADELPHIA, PA 19103

EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT

PAPER NUMBER

1794

NOTIFICATION DATE

DELIVERY MODE

03/05/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/509,269	Applicant(s) KAWANO ET AL.	
	Examiner ALICIA CHEVALIER	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

RESPONSE TO AMENDMENT

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 8, 2010 has been entered.
2. Claims 1-6 and 11-21 are pending in the application, claims 7-10 have been cancelled.
3. Amendments to the claims, filed on January 8, 2010, have been entered in the above-identified application.

REJECTIONS

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 103

5. Claims 1-6 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka et al. (U.S. Patent No. 6,064,524) in view of Yamada et al. (U.S. Patent No. 6,051,665), Murata et al. (U.S. Patent No. 5,886,819) and Hasuo et al. (U.S. Patent No. 6,716,513).

Regarding Applicant's claims 1, 2, 11, 12 and 18-21, Oka discloses a multilayer film (*optical functional materials, title*) comprising a substrate film (a) (*transparent substrate, col. 8,*

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line 43 and figure 15a, reference #11), a hard coat layer (b) containing a (meth)acrylate compound (*clear hard coat layer, col. 18, lines 1 and 34 and figure 15a, reference #16*), an electrically conductive layer (c) containing electrically conductive particles (*antiglare layer with high refractive index, col. 12, lines 16-30 and figure 15a, reference #12*), and a resin layer (d) (*low refractive index layer, col. 26, lines 6-7 and figure 15a, reference #13*), those three layers being disposed on at least one face of the substrate film (a) (*figure 15 a*). The resin layer (d) has fine irregularities on the surface (*figure 15a*). The surface of the resin layer (d) of the multilayer film has a reflectance of less than 2% (*col. 1, lines 44-45*).

Oka further discloses that the metal particles enhance the high reflective index of the electrically conductive layer (*antiglare layer, col. 11, lines 63-66*), but does not specify the weight percent of particles in the layer. Therefore, exact weight percent of the content of particles is deemed to be a result effective variable with regard to the high index of refraction property. It would require routine experimentation to determine the optimum value of a result effective variable, such as weight percent of content, in the absence of a showing of criticality in the claimed weight percent. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). One of ordinary skill in the art would want a high weight percent of particles in order to increase the reflective index, which would help reduce glare.

Oka fails to disclose the claimed composition of the resin layer.

Yamada discloses a coating composition with low refractive index which exhibits superior adhesion to various substrate, excellent scratch resistance, and excellent weatherability (*abstract*). The coating composition comprises a fluorine containing copolymer having a vinyl ether in principal chain (*col. 3, lines 29-55*) and silica particles with a particle size of 0.001 to 0.2

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μm (*col. 15, lines 23-38*). The composition further comprises a saline coupling agent or a hydrolysate of the agent or a product obtained by subjecting the hydrolysate to reaction that meets the formulas of claim 11 (*col. 6, lines 35-67*), a alkoxysilyl group (*col. 9, line 46 through col. 10, line 12*) and a cross-linkable compound (*col. 10, lines 22-24*). The fluorine-containing copolymer contains a fluorine-containing olefin chain with a fluorine content of 30% or more, or 20% to 70%, and contains 10% to 70% of a repeating unit derived from the vinyl ether-containing compound (*col. 6, lines 12-21*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the low refractive index coating composition of Yamada as the low refractive index resin layer of Oka because Yamada's coating composition exhibits superior adhesion to various substrate, excellent scratch resistance, and excellent weatherability.

Oka and Yamada fail to disclose the resin layer having an arithmetic average surface roughness Ra ranging from 0.004 μm to 0.020 μm or a haze of less than 3%.

Murata discloses antiglare material having an arithmetic average surface roughness Ra ranging from 0.03 μm to 0.20 μm (*col. 3, lines 55-57*) or a haze of less than 3% (*col. 4, lines 5-20*). If the Ra is too high a glittering phenomenon occurs and if it is too small there is insufficient antiglare effect. Likewise if the haze is too low it will cause a decrease in the antiglare effect and if it is too high the contrast of the images would be decreased (*col. 3, lines 61-64*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to having have a haze of less than 3% for the resin layer in the combination of Oka and Yamada as taught by Murata in order to insure good visibility through the film.

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The exact surface roughness, Ra, of the resin layer is deemed to be a result effective variable with regard to the antiglare effect. It would require routine experimentation to determine the optimum value of a result effective variable, such as Ra, in the absence of a showing of criticality in the claimed Ra. *In re Boesch*, 205 USPQ 215 (CCPA 1980), *In re Woodruff*, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Oka, Yamada and Murata fail to disclose the silica particles have two or more particle size distributions.

Hasuo teaches a material with antifogging properties and antifouling properties (*col. 1, lines 14-20*). The material comprises silica particles with at least two size distributions (*figure 1 and claims 1-4*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use silica particles with at least two size distributions as taught by Hasuo in the combination of Oka, Yamada and Murata in order to improve the antifogging and antifouling properties.

Regarding Applicant's claims 3 and 4, Oka discloses that the substrate contains a polymer containing one selected from the group consisting of the ester, the acetate and the acrylate (*col. 8, lines 43-55*).

Regarding Applicant's claims 5-6, Oka discloses that the electrically conductive layer (c) has a thickness of 0.01 μm to 1.0 μm (*col. 9, lines 63-67*) and contains a metal oxide particles (*col. 12, lines 16-30*).

Regarding Applicant's claims 13-17, the preambles "display film," "display", "display filter," "front protector panel" and "plasma display" are deemed to be statements with regard to the intended use and are not further limiting in so far as the structure of the product is concerned.

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In article claims, a claimed intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. MPEP § 2111.02.

ANSWERS TO APPLICANT'S ARGUMENTS

6. Applicant's arguments in the response filed January 8, 2010 regarding the 35 U.S.C. 103(a) over Oka in view of Yamada, Murata and Hasuo of record have been carefully considered but are deemed unpersuasive.

Applicant argues that one skilled in the art would not combine Hasuo with Oka, Yamada and Murata. Applicant further states that the films disclosed in the specification are highly transparent and have excellent anti-reflection properties and are highly scratch resistant.

The limitations on which Applicant relies (i.e., highly transparent, excellent anti-reflection properties and highly scratch resistant) are not stated in the claims. It is the claims that define the claimed invention, it is claims, not specifications that are anticipated or unpatentable.

Applicant argues that Hasuo does not disclose anti-glare, anti-reflection or resistance, but instead is limited to ant-fogging and anti-fouling properties. Thus, it would not be obvious to combine Hasuo with the other references.

Applicant arguments are not found persuasive because Hasuo is also concerned with being anti-glare. Hasuo discloses the presences of fog or water droplets on the surface of materials often makes it impossible to exhibit functions inherent in the materials, or deteriorates the appearance and design of the materials due to scattering of light, i.e. glare (*col. 1, lines 30-*

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34). Therefore, it would be obvious to one of ordinary skill to also improve the antifogging and antifouling properties of Oka to reduce the scattering of light, i.e. glare.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alicia Chevalier/
Primary Examiner, Art Unit 1794
3/3/2010